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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/676,292 | 09/28/2000 | Fredrick W. Crist | 07150.003001 | 2328 |

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| EXAMINER | |
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| PERT, EVAN T | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2829 | |

DATE MAILED: 10/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/676,292 | CRIST ET AL. | |
| | Examiner | Art Unit | |
| | Evan Pert | 2829 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 September 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) *23-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22,26 and 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2,3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 23-25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected "method", there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5. Rejoinder of non-elected method claims will be considered upon identification of an allowable linking claim.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 3, 4, 9, 10, 14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Alegria et al. (IEEE article titled "A Remote Controlled Automated Measurement System").

Regarding claim 1, Alegria discloses an apparatus for remotely monitoring and developing steps in a semiconductor manufacturing process (i.e. "used to characterise a semiconductor device") comprising: at least one remote workstation connected via a remote access link to a local workstation; a test system connected via a link to the local workstation[ Fig. 1 ].

Regarding claims 2 and 18, Alegria et al. discloses a client computer (Fig. 1) that inherently includes a client "switch" that connects a client network to at least one remote workstation (per definition (3) of "switch" per IEEE Standards Terms on p. 1133).

Regarding claim 3, Alegria et al. disclose a host computer (i.e. "server" in Fig. 1) that inherently has a "switch" that connects a host network to the test system and when engaged, prevents client access to the test system (i.e. when the "server" in Fig. 1 is not switched onto the LAN, client access is prevented).

Regarding claim 4, the host (i.e. "server" in Fig. 1) inherently has a power "switch," for example.

Regarding claim 9, the link is part of a LAN (Fig. 1).

Regarding claim 10, ancillary equipment such as a "power supply" is pre-selected (by the test procedure dictated by the client).

Regarding claim 14, Alegria et al. discloses an apparatus for remotely monitoring and developing steps in a semiconductor manufacturing process (i.e. "used to characterize a semiconductor device") comprising: a plurality of remote workstations (i.e. client computers with one shown in the example of Fig. 1), each connected via a remote access link (i.e. a LAN) to a local workstation (i.e. "server"); a test system (e.g. power supply + multimeter per Fig. 1) connected via a link (i.e. IEEE 488 Bus) to the local workstation (i.e. "server").

Regarding claim 19, Alegria et al. disclose that the test system further comprises ancillary equipment (e.g. a "power supply") pre-selected by a client to test various functions of a semiconductor device (such as various electrical behaviors).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertocco et al. (IEEE article entitled "A Client-Server Architechture for Distributed Measurement Systems") in view of Alegria et al. (IEEE article titled "A Remote Controlled Automated Measurement System").

Regarding claim 26, Bertocco et al. discloses an apparatus for remotely monitoring and developing steps in a semiconductor manufacturing process (i.e. "remote control of complex instruments that are used to test the integrated circuit wafers during design of new devices") comprising: at least one remote workstation operatively connected (i.e. "client" in Fig. 1) via a Wide Area Network (WAN) communication line to a local workstation (i.e. "server" in Fig. 1); a test system (i.e. "instruments") connected to the local workstation (i.e. "server").; and a host network detachably connected by a host switch and a link to the test system (i.e. a multi-user multi-instrument proposal at p. 68).

Bertocco does not disclose that either the client or server sides of the WAN are LANs.

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to provide a LAN for either of the client and server sides of the WAN connection taught by Bertocco. Alegria et al. teach that a LAN "stands on the resource sharing possibility" in that "data, programs and equipment are available to anyone on the network without regarding the physical location of the resource and user." One of ordinary skill in the art would have been motivated to adopt a LAN at the server side of the WAN to benefit from "sharing of resources" at the server side of the WAN.

Regarding claim 27, neither reference mentions the notoriously well known "video camera" as part of a remote testing system. However, the examiner takes Official Notice that a "video camera" connected through the internet for remote visual observation was well known at the time of applicant's claimed invention. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to "include a video camera networked to the system" motivated by a desire to have video remote conferencing or direct observation of remote testing at the host side.

6. Claims 11-13 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alegria et al. as applied to claims 1 and 19 above, and further in view of Bertocco et al.. Alegria et al. shows an example of ancillary equipment, but does not disclose a temperature forcing unit, wafer prober or device handler, which are notoriously well known as part of "complex instruments" that are "used to test integrated circuit wafers during the design of new devices."

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to adopt at least one of a temperature forcing unit, wafer prober and device handler, motivated to utilize complex instruments for testing devices remotely, at the suggestion of Bertucco et al..

7. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alegria et al. as applied to claims 1 and 14 above, and further in view of Bertocco et al.. Alegria does not disclose that the LAN having a client and server with test gear in Fig. 1 is advantageosly connected to a WAN (i.e. the internet). Bertocco discloses the advantage of a WAN being that "local networks" can be connected between "far sites" easily [Introduction]. One of ordinary skill in the art would have been motivated to adopt a WAN connected to the LAN in Fig. 1 of Alegria et al. to allow a client to access the test set-up from a "far site" at another "LAN".

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alegria et al. as applied to claim 3 above, and further in view of the IEEE Authoritative Dictionary of IEEE Standards Terms. Alegria et al. are silent about an "ethernet switch." The IEEE dictionary indicates that a Ethernet LAN is a LAN that does not use LLC headers on its frames but instead encodes a protocol type field directly after the source address [p. 397]. One of ordinary skill would have been motivated to add an ethernet switch to the network of Alegria et al. in order to swithc onto an ethernet LAN to avoid the need for using LLC headers on its frames (and achieve faster speed as is notoriously well known in the art).

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alegria et al. as applied to claim 3 above, and further in view of the IEEE Authoritative Dictionary of IEEE Standards Terms.

Alegria et al. is silent about "computer security software." The IEEE Dictionary teaches that security software provides for "protection of computer hardware and software from accidental or malicious access, use, modification, destruction, or disclosure [p. 1015]. It would have been obvious to one of ordinary skill in the art to add computer security software to any and all computers on the LAN disclosed by Alegria et al., motivated to "protect" as is notoriously well known in the art.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alegria et al. as applied to claim 1 above, and further in view of the IEEE Authoritative Dictionary of IEEE Standards Terms.

Alegria et al. do not speak about a notoriously well-known "router," but the IEEE Dictionary explains that a router is a functional unit to connect two computer networks [p. 993]. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include a router in the LAN taught by Alegria et al.. One of ordinary skill in the art would have been motivated to include a router to connect with other LANs, such as when a remote user is beyond the LAN's reach.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alegria et al. as applied to claim14 above, and further in view of Webtrends Firewall Suite 3.0 web page announcement dated August 24, 2000.

Alegria et al. are silent about including a plurality of firewalls on the server. According to the Firewall web page, "Firewall Suite is an essential solution to analyse bandwidth usage and cost, prevent security breaches and monitor employee activity," which would motivate one of ordianry skill to include a plurailty of firewalls on any LAN, including the LAN with server and remote client workstations disclosed by Alegria et al..

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evan Pert whose telephone number is 703-306-5689. The examiner can normally be reached on M-F (7:30AM-3:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 703-308-1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.

ETP
September 30, 2003

EVAN PERT
PRIMARY EXAMINER